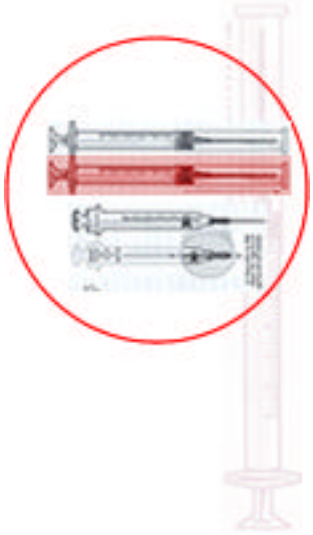
NIOSH recommends that health care facilities use safer medical devices to protect workers from needlestick and other sharps injuries. Since the passage of the Needlestick Safety and Prevention Act in 2000 and the subsequent revision of the OSHA Bloodborne Pathogen Standard, all health care facilities are required to use safer medical devices.

SAFER MEDICAL DEVICE IMPLEMENTATION IN HEALTH CARE FACILITIES

SHARING LESSONS LEARNED

NIOSH has asked a small number of health care facilities to share their experiences on how they implemented safer medical devices in their settings. These facilities have agreed to describe how each step was accomplished, and also to discuss the barriers they encountered and how they were resolved, and most importantly, lessons learned.



Phase 3 – Identify and Screen Safer Medical Devices

The Department of Dentistry is a unit of a multi-site, public healthcare system. The system includes a 728 bed main campus teaching hospital and outpatient-based patient services. The system also includes 12 satellite outpatient locations. Dentistry sees patients at four sites: the main campus of the medical center, two satellite health centers and a skilled nursing center.

In Phase 2 of this study, we decided to focus our efforts on dental anesthetic syringes, and preventing needlestick injuries while using these devices. An extensive search of dental literature via printed copy and the Internet was undertaken. We found that three dental safety syringes devices were available:

- One safety needle that fits the metal dental syringes that are widely used by dental practitioners.
- Two types of safety-needle/plastic plunger assemblies

We reviewed current research using these devices and found it very sparse. We were able to locate only one study that was published that evaluated dental safety needles. The study was performed in a university dental school setting. The investigators concluded that additional studies should be undertaken to further evaluate the use of safety needles in the dental setting.

I contacted the two largest dental suppliers in the region to ask for their assistance in obtaining some samples for our review. I was able to immediately order one device, a safety needle assembly. The two other devices were not available immediately. I contacted the manufacturer directly and received a sampling of the second type of safety needle/syringe combination. The third device, a safety-needle/syringe system had been called back and was being redesigned.

A sales representative from the third company contacted me shortly thereafter and stated he had a prototype of the redesigned dental safety syringe. He brought the device out and demonstrated it for some of the clinical staff. This redesigned unit was not be available to test until Mid July 2003.

The clinical staff used the sample screening forms provided by NIOSH without modifications to evaluate the three products. The first two products were safety needles with retractable covers that fit directly on the metal dental syringe. The third device screened was the dental safety syringe/needle assembly.

The staff decided to try all three products during the pilot test. We decided to screen all three for several reasons. The main reason was that there was such a limited variety of products we thought we should thoroughly test all three. The second reason that all three products were tested was: although most dentists are very comfortable with the weight and shape of the traditional dental syringe,

we did not want to rule out a product merely because it's design was different than the traditional metal syringe.

The results of our evaluation are discussed in the Phase 4 report.

Staff Hours

Type of Staff	Hours Spent on Phase 3
Management	1
Administrative	30
Front-line	25
Total	56

Other, non-labor items:

Item
1. Review journals for new products
2. Internet Search regarding Dental Sharps Devices
3. Review previously published studies on dental sharp injuries and products